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White House Establishes a Science Council

The Administration's decision to establish a White House Science Council is surely better than another kick in the teeth for science. But it would be foolish to regard the newly created part-time body as evidence of fresh concern or sensitivity for the well-being of the national research enterprise.

The Council, whose creation and membership were announced February 17, bears some resemblance to the President's Science Advisory Committee (PSAC), which Richard Nixon abolished along with the White House science office in 1973. But even allowing for the fact that PSAC's memorialists have endowed it with political influence that it never possessed, the newly established Council starts out looking pretty pale in comparison.

Not too much should be made of the fact that the Council is adviser to the adviser, rather than as PSAC nominally was, adviser to the President. In reality, the members of PSAC functioned as advisers to the adviser,

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and saw the President, if at all, for little more than ceremonial sessions. The real strength of the PSAC format was in the frequency of its meetings, usually monthly—compared to an every-other-month schedule planned for the new Council—and in its provision of staff to tend to the members' interests between meetings.

The Council, with 13 of a maximum of 15 members now on board, not only lacks staff—a crucial matter for getting things done in Washington—but its appointments are for just one year; the Council itself expires on December 31, 1983, "unless sooner extended," according to its official charter. (See page 2 for membership.)

So, what's it all about, and why did this crew of predominantly well-recognized performers bother to sign on as members?

The answer has a lot to do with Science Adviser Keyworth's peculiar situation between a financially ravenous scientific community and an Administration that instinctively feels that science is important but doesn't know much about it and isn't at all sensitive to its vulnerabilities. Thus, prior to Keyworth's arrival in the job 10 months ago, the newly inaugurated Reaganites spared most scientific spending from the initial round of cuts they made in the budget inherited

from Carter. Last September, however, their esteem for science suddenly faded and, along with most other non-defense spending, it was slated for a cut. Keyworth argued for restraint and selectivity, but got nowhere with the budget-choppers.

In this circumstance, there's a commonality of interest between the Science Adviser and the academic and high-tech industrial chiefs who fear the jarring effects of erratic and purposeless course changes in federal relations with R&D.

In clue-sniffing Washington, the fact that Keyworth was allowed to set up the Council is regarded as sign of favorable regard for him on the part of the White House inner circle. But given the constricted ground rules that will govern the Council's operations, the chances for (Continued on page 2)

In Brief

Japan to the Rescue: It cost \$5 million to build a neutron source at the Lawrence Livermore Laboratory, but since it went into operation in 1978, only half of the facility has been in use because of a shortage of operating funds. Now it's in full-scale operation, following conclusion of a deal in which the Japanese government will provide \$2 million a year, for five years, in return for Japanese researchers getting access to the facility.

The hard-lobbying Consortium of Social Science Associations has tallied the number of social scientists on the National Science Foundation's 24-member National Science Board, and reports it found only two. In contrast, the Association says, 34 percent of all doctoral-level scientists in the US are social or behavioral scientists. Citing what it calls an "intellectually unrepresentative" situation, the Association is asking the White House for a more favorable balance on the Board.

A hidden clause in the densely printed federal budget has set off alarms in Washington's biomedical lobbying network. Under NIH, the budget text quietly notes a 10-percent cut in reimbursement for indirect costs. The money is needed for grants, say the budgetmakers.

Asked at a House hearing whether the recent Congressional pay increase might be better applied to graduate-student aid, University of California President David S. Saxon answered from the witness chair: "I'm pretty dumb, but I'm not dumb enough to answer that question."

...Council to Meet Only Every Other Month

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seriously influencing policy are rather slight.

Nevertheless, the membership adds up to a powerful slice of big science and technology. First off, it should be noted that, at least so far, Keyworth's selections reflect no amends for the longtime lack of women and social scientists in the Administration's high councils of science. The Council is made up of high achievers in the hard sciences and big bosses, or former bosses, of big organizations.

What are they going to talk about when they get together for those every-other-month meetings (though they may meet more often if Keyworth wants them to)? The charter, required by the Federal Advisory Committee Act, specifies that "The Council shall concern itself with specific issues assigned by the Director...and will keep him informed of changing perspectives in the science and technology communities."

The first meeting is set for later this month—date and agenda undisclosed at this writing.

Science Council Membership

Chairman: Solomon J. Buchsbaum, 52, Executive Vice President, Bell Labs, served on the President's Science Advisory Committee under Nixon; over the years, a member of numerous high-level advisory bodies in Washington, and an active member of the National Academy of Sciences and the National Academy of Engineering.

Vice Chairman: Edward A. Frieman, 56, former chief of fusion research at Princeton University and head of research at the Department of Energy during the Carter Administration; now Executive Vice President of Science Applications, Inc., LaJolla, Calif.; a NAS member with extensive experience on federal technical advisory hodies

Harold M. Agnew, 60, was Director of the Los Alamos Scientific Laboratory from 1970-79, when he became President of the General Atomic Corporation. A veteran of the Washington science-advisory scene, he served on the President's Science Advisory Committee during the Johnson and Nixon administrations. He's a member of the National Academy of Sciences and the National Academy of Engineering

John Bardeen, 73, Nobel-laureate in physics, was at Bell Labs from 1945-51, when he went to the University of Illinois as Professor of Electrical Engineering and Physics; now professor emeritus; not much of a track record in Washington affairs. Holds membership in both academies.

D. Allan Bromley, 55, Professor of Physics, Yale, and Chairman of the Board, American Association for Advancement of Science; an outspoken advocate of federal support for research and higher education, he's been on numerous middle-ranking government committees and panels of the NAS, of which he is not a member.

George A. Cowan, 62, Laboratory Senior Fellow at the Los Alamos Scientific Laboratory, which he joined in 1945; received the Atomic Energy Commission's E.O. Lawrence Medal in 1965; limited Washington experience includes service on several NAS panels, of which he, too, is non-member.

Will the meetings be open to the press? The openness requirements of the Federal Advisory Committee Act (FACA) have long been regarded in science's high policy circles as an impediment to restoring any outside advisory group to the White House science-advisory apparatus. Frank Press, Jimmy Carter's science adviser, often said that he did not see how a PSAC-style restoration could properly function in the open-though he never had the chance to try it, since Carter took bizarre pride in doing without advisory groups, even where they might have been useful. The FACA, however, is routinely evaded by cleverly advised part-time government committees that want to keep out the public; one of the worst offenders in this regard is the otherwise timid National Science Board, the policy body of the National Science Foundation.

Given the Reagan Administration's contempt for the public's right to know about the conduct of public business, it may be safely assumed that the White House Science Council will conduct its business behind closed doors.—DSG

Edward E. David Jr., 57, President, Exxon Research and Engineering; got out unscathed from service as Richard Nixon's Science Adviser; has kept in close touch with Washington through active membership in both academies, the presidency and board membership of the AAAS, and so forth.

Donald S. Fredrickson, 57, resigned from the directorship of the National Institutes of Health last July, and now is a Fellow at the National Academy of Sciences, of which he is a member and former President of the subsidiary Institute of Medicine.

Paul E. Gray, 50, President of MIT, well-connected to Washington, though not often there; a former Dean of Engineering at MIT, and member of NAE, he's been pushing for expanded federal as well as non-governmental support for higher education, particularly engineering.

Robert O. Hunter, 35, founder and President of Western Research Corporation, San Diego, he's a PhD physicist from UC Irving who from 1967 to 1972 was with the Air Force and served at the AF Aero Propulsion Laboratory and the AF Weapons Laboratory.

Arthur Kent Kerman, 52, Director, Center for Theoretical Physics, MIT, where he joined the faculty in 1956; he's put in consulting time at many of the big national laboratories—institutions which are being closely scrutinized by the Administration's budgetchoppers; non-Academy and, heretofore, little involved in the Washington scene.

David Packard, 69, co-founder and Chairman of the Board, Hewlett-Packard; Deputy Secretary of Defense under Richard Nixon; has many upper-level connections with high-tech industry and big academe.

Edward Teller, 74, the most controversial and honor-laden of the group, now a Senior Research Fellow at the Hoover Institution, Stanford University, following long service at the Los Alamos and Livermore labs, where he earned the pop title of "Father of the H-Bomb"; also the enduring enmity of the eastern liberal wing of science for his role in the Oppenheimer case and his hardline views on arms control and nuclear-weapons developments. Keyworth and Teller got to know each other during Keyworth's Los Alamos career, and it was Teller who recommended Keyworth for the White House science post.

Universities Rally Against Budget Reductions

University and college presidents across the country have launched a campaign to reverse the major cuts proposed by the Reagan Administration in federal support for student loans in fiscal 1983.

The academic chiefs feel that last year they were relatively restrained in their criticism of the Administration's efforts to reduce the loans by 20 to 25 percent, accepting that there were abuses to be eliminated, and that students and educational institutions could legitimately be asked to shoulder some share of public-expenditure cuts. This year, however, the proposed reductions are far greater, in some cases up to 50 percent. In these circumstances, a public appeal is being made in an attempt to persuade Congress to reject at least some of the proposed reductions. "The President is so far from base on this that we don't think it will stick," says Newton Cattell, Director of Legislative Affairs for the Association of American Universities (AAU), Washington-based watchdog for the big research universities.

Authorization committees in the Senate and the House are unlikely to need much convincing, since both have been at the forefront of efforts to increase student aid in recent years. Senator Robert T. Stafford (R-Vt.), Chairman of the Senate Labor and Human Resources Subcommittee on Education, Arts and Humanities, has already gone on record with his opposition to the proposed cuts, arguing that "we've already cut as far as we can." Representative Paul Simon (D-III.), Chairman of the House Education and Labor Subcommittee on Post-secondary Education, has also promised to fight the Administration's proposals.

"The real problem is with the budget committees," says the AAU's Cattell. "We are going to try to make sure that when the budget committees report the first budget resolution, they insist on only a very small amount of saving from the Graduate Student Loan (GSL) program; if they go for \$300 million or more, it could be a disaster."

By tightening up the eligibility requirements for student loans, the Reagan Administration hopes to be able to reduce the costs of the loan program from an anticipated \$2.807 billion in 1982 to \$1.641 billion in

Hotline Provides Information

A newly formed Washington-based coalition of academic organizations, the Action Committee for Higher Education, is the focal point for rousing mass opposition to the Administration's proposed budget cuts for higher education. The Committee provides packets of the customary campaign material for such endeavors, and also has a toll-free telephone line for up-to-the-minute information. Address: Action Committee for Higher Education, Suite 410, One DuPont Circle, Washington, DC 20036. Telephone in the Washington area: 293-7050, ext. 77; outside: 800-368-5705.

1987. The costs of the loan program, under which the government agrees to pay all interest on a loan while a student is in college, and any interest over 9 percent after the student has left, has escalated rapidly in recent years with the rise in commercial interest rates; in 1977, for example, the total cost was only \$367 million.

By introducing changes such as requiring all applicants to undergo a "needs test" and to pay market interest rates two years after leaving school, the Administration hopes to reduce the number of those who, it claims, are currently borrowing money to go to college even though they do not need to. "The current program...encourages students to borrow regardless of financial need from their first year in school and can needlessly cause students to amass high levels of debt...[which] allow decreased reliance on family savings and student work," the Office of Management and Budget contends.

University presidents, concerned that the cuts could decrease the number of undergraduates at their institutions, argue that the cuts would fall hardest on middle-class students, and that any tax savings to taxpayers would be offset by increased costs of education.

Particular concern is being directed to the Reagan Administration's proposal to eliminate graduate students from the main GSL program, and require them (Continued on page 4)

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... Enrollments Declines Worry Universities

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to raise loans from an auxiliary program at interest rates of 14—rather than 9—percent. According to the American Council on Education (ACE), almost half of the nation's 1.2 million graduate students are currently receiving federally subsidized loans, and would, therefore, be directly affected by the higher costs. "To call what is happening to student aid a calamity is an understatement," says Edward J. Bloustein, President of Rutgers University, pointing out that about half of the 4000 graduates at his University would lose their loans.

As part of its campaign against the proposed cuts, the ACE is circulating calculations which show that a graduate student might face the prospect of having to pay \$500 a month to the federal government over a period of ten years after leaving graduate school. "Such heavy debts undoubtedly would turn many talented students away from our graduate and professional schools altogether," says a press statement issued by the ACE soon after the cuts were announced.

The AAU is paying particular attention to the proposal to eliminate graduates from the GSL program, since these universities would be badly hit by further declines in graduate numbers, already falling in many areas of science and engineering. AAU officials are, however, worried that if they lobby too hard in support of graduates, the Administration might react by putting graduates back into the undergraduate loan program—but then looking for other ways to save money, such as removing the current exemption which students enjoy from paying any interest while they are in college. "We do not want to throw out the baby with the bathwater," says Cattell. "Maybe we have not sold the government on the importance of graduate students to the health of the nation."

Groups such as the ACE, the AAU, the American Association of State Colleges and Universities, and the Committee of Urban Program Universities are pulling out all available stops in their lobbying efforts to get the impact of the cuts reduced. They are receiving strong (Continued on page 5)

Rep. Brown Gloomy, Keyworth Cheery on R&D Budget

Rep. George Brown (D-Calif.), a longtime supporter of federal support for science—and an influential member of the House Science and Technology Committee—commented last month on the Reagan Administration's spending plans for research as follows:

Generally speaking, the overall budget for science, energy, and environment has remained at 1981 dollar figures for FY '83. Accounting for inflation, as we all must, this represents a substantial net loss for these programs. When the significant increase in the Department of Defense research, development, testing and evaluation program and the National Aeronautics and Space Administration's increase for the space shuttle are taken into account, the result shows even greater cuts in science, energy, and environmental programs.

The cuts in environmental R&D are alarming—environmental R&D is cut 50 percent from 1981 authorizations even before accounting for inflation. Energy programs are down about 40 percent from 1981, but more important, the "mix" of programs is irresponsibly skewed: nuclear programs now would account for 87 percent of the energy budget while conservation would be down to 1 percent of federal energy expenditures. Science and engineering education, our scientific "capital" of the future, has been cut to about 20 percent of what it was in 1981, even

as programs to help our education system have been cut throughout government.

And a few days later, in an address in London to the Parliamentary and Scientific Committee, White House Science Adviser George A. Keyworth cheerfully offered the following appraisal:

I have made the analogy to the need to carefully prune a tree to foster its future healthy growth. But the fact of the matter is that I was not driven from Washington by irate bands of "pruned" scientists.

The reason is simple. The Reagan Administration in its budget treated science and technology as a priority second only to improvement of our defense capabilities. Total federal expenditures for R&D will increase to \$44.3 billion in 1983 from \$40.4 billion in 1982. Our expenditures for basic research, which we regard as our highest priority within the science and technology budget, will grow from \$5.3 billion to \$5.8 billion. In both cases these increases more than keep pace with the expected rate of inflation. These figures reflect the President's judgment that the health of our science and technology enterprise is essential to meeting our global objectives: sustained economic recovery, enhanced national security, and improved quality of life for our people...

I am frankly proud of the results of this budget exercise and of the principles it embodies.

DNA Committee in Reversal on Federal Rules

Sensing public distrust and a threatened patchwork of local regulations, the Recombinant DNA Advisory Committee (RAC) of the National Institutes of Health has abruptly dropped plans to lay aside all mandatory federal safety rules for genetic engineering.

The change, voted last month by the Committee, runs counter to the overwhelming weight of opinion from individuals in the recombinant DNA research community, and signifies substantial concerns about a gap between scientific and popular perceptions of the safety issue.

For the past four years, NIH has steadily been reducing the stringency of the guidelines for recombinant DNA research, first introduced in 1976. Each move has received the strong endorsement of scientists engaged in the research, on the grounds that the guidelines are unnecessary. Although the pace of deregulation has been tempered by an awareness at NIH that moving too quickly would risk Congressional intervention, it appeared to follow a logical series of steps based on a growing conviction that genetic-engineering research was no more dangerous than conventional research using the same organisms.

Until its February meeting, the RAC has seemed poised to take the last major step, which would have removed the mandatory aspects of the guidelines and turned them into a voluntary code of practice. Such a proposal had been discussed at the previous meeting, in

STUDENT AID

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support from students. A mass demonstration is scheduled for the steps of the the Capitol on March 1 by the US Students Association and the National Coalition of Independent College and University Students.

The campaign against the cuts has so far aroused wide support. "There's a lot of sentiment out there," says one organizer. "Throughout the country people seem to be very concerned about the proposed cuts, and the media have given them a lot of attention." Last week, for example, The New York Times gave wide publicity to a press conference held by thirteen college and university presidents and law school deans from Pennsylvania who held a news conference to complain about the Administration's new policies. The common theme was that the cuts would have a "devastating" effect on both students and their institutions. "This is not only a shameful retreat from equality of opportunity, but an unwise disinvestment in the future of our country," said Sheldon Hackney, President of the University of Pennsylvania, who sponsored the meeting.

Given the huge numbers and noisemaking powers of the constituency threatened by these cuts, the odds seem bright for an Administration retreat. September, and although not formally endorsed at the time, the Committee decided by a vote of 12 to 9 to suggest voluntary rather than mandatory guidelines in proposed revisions to be published for public comment in the Federal Register.

The suggestion received widespread approval from individual scientists. In purely numerical terms, the Office of Recombinant DNA Activities at the NIH received almost twice as many letters from scientists approving the recommendation for voluntary compliance as from those supporting a milder reform proposal for revising the guidelines that had been offered by a Committee member, Susan Gottesman of the National Cancer Institute.

A typical comment came from Paul Berg, one of the three original signatories of the 1973 letter proposing a temporary moratorium on recombinant DNA research. "I believe that the Guidelines for Recombinant DNA research are now dispensable," he wrote. "Based on the substantial amount of experience and experimentation with the DNA methodology during the last six years, there is widespread agreement that the risks that were once thought to be so plausible are actually remote or non-existent. If that judgment is indeed correct, and I know of no evidence to indicate otherwise, then it seems wasteful of effort and money, even counter-productive, to maintain the elaborate procedures and organizations that were set up to guard against hypothetical threats."

If individual expression was the sole voice of the scientific community—and social judgments were made purely on an intellectual basis—there is little doubt that the guidelines would now be on their way to the history books. But the community also has a finely tuned survival instinct, and in this case warning signals had been set off by a recent resurrection of community-based movements, in many cases catalyzed by the setting up of small biotechnology companies in their midst.

In Massachusetts, for example, not only the city of Cambridge, but also Boston, Somerville, and Waltham—each of which has faced the prospect of the establishment of at least one biotechnology company—have been debating local controls. In most cases, bodies such as the city of Cambridge Biohazards Committee have had little difficulty in accepting the scientific revisions to the guidelines approved by the Director of NIH. But several communities have openly stated that, if NIH moved to make the guidelines voluntary, they would introduce local rules to reinstitute them as mandatory.

The biggest threat of this nature has come from the state of California. The State Assembly's Health Committee has already held two meetings in Sacramento on (Continued on page 6)

...Bio-Industry Fears Local Regulations

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the safety of recombinant DNA research. Both scientists and NIH officials have participated in these meetings, arguing that current regulatory procedures are both reasonable and adequate. So far their message has been accepted by most of the members of the committee.

The situation would, however, be very different if the NIH now decided to make the guidelines voluntary. The California Committee's Chairman, Arthur Torres, has already promised that, were this to happen, he would introduce legislation requiring all institutions in California carrying out research using recombinant DNA activities—whether publicly or privately funded—to obey formal safety procedures recommended by the NIH.

The specter of state regulation has dampened previous enthusiasm for doing away with the guidelines at the national level. Virtually all private companies and research institutions in the field share the belief that there is little scientific basis for treating recombinant DNA experiments any differently from other biological experiments with potentially hazardous organisms. But they now see the NIH guidelines—including their present, mandatory, implementation—as both a political and a legal defense against new challenges from local communities.

Reflecting this, the letters received from the NIH from institutions rather than individuals commenting on the RAC's proposal run strongly in favor of retaining the current regulatory system, in particular the requirement that they maintain Institutional Biosafety Committees to endorse the safety procedures used in experiments.

University groups, for example, argued that although many individual scientists felt the current bureaucracy to be unnecessary, it was probably preferable to opening up local debates about new regulations. "It is our concern that the relaxation of the NIH guidelines would lead some local communities to regulate this activity with different standards. The impact of such an occurrence could be devastating to the scientific community and the public in the long term," wrote Thomas O'Brien, Chairman of the Committee on the Regulation of Hazardous Biological Agents of the Harvard Medical School.

A similar reaction came from most of the companies engaged in developing new biotechnology processes based on recombinant DNA techniques. "One significant reason for adherence to a uniform system of federal guidance and overseeing is our belief that such an approach is more compatible with commercial development and the benefits it brings to society than would be a system of varying local requirements," commented the Industrial Biotechnology Association,

Another Chief Quits at NIH

Senior vacancies continue to proliferate at the National Institutes of Health without the Reagan Administration making any visible move to fill them or even showing any interest in the melting away of leadership at the great biomedical research institution.

The latest to announce departure plans is Robert N. Butler, Director of the National Institute of Aging. He's off this summer to establish a gerontology department at the Mt. Sinai School of Medicine, in New York City. At present, the directorship of NIH has been vacant since last July, when Donald S. Fredrickson resigned for personal reasons, and five of the 11 institutes on the Bethesda campus also lack directors. In addition, two other top positions are vacant: the deputy directorship for science and the directorship of the Division of Research Resources.

For several months, the word around Washington has been that James Wyngaarden, Chairman of the Department of Medicine at Duke University Medical School, had accepted an offer to become Director of NIH, and that filling of the other jobs awaited his official appointment by the President. A White House source told SGR that nothing more than a sluggish flow of paperwork is holding up the appointment.

Adhering to the protocol required of pending presidential appointees, Wyngaarden declines to discuss the job offer or his feelings about the bureaucratic limbo he's in. But in medical lobbying circles in Washington, there's concern that Wyngaarden—a favorite of the biomedical research establishment—might become fed up and decide to remain at Duke.

representing companies such as Genex and Cetus, adding its support for the continuation of the guidelines.

One of the companies which would be most affected by a state law in California—and which has alfeady raised eyebrows among state legislators over its relationship with the state-run University of California—is San Francisco-based Genentech. Here, too, Genentech scientists asked for the current system to be maintained, aware in particular that if a court suit is at any time filed against the company, they would be able to point to their observance of the NIH guidelines to substantiate claims of making reasonable attempts to ensure the safety of their research. "The alternative to the attentiveness of the NIH could well be a patchwork of local

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... Congressional Intervention Less Likely

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and state regulations which might impede our national progress and do nothing to assure additional safety," wrote Genentech's Director of Protein Chemistry, Michael Ross, supporting in principle the Gottesman rather than the RAC proposal.

The strength of this institutional reaction clearly surprised many RAC members at the February meeting. In September, the majority of members of the Committee appeared persuaded by the scientific arguments that strict regulation was no longer necessary, and were quite prepared to see the end of the guidelines as federal requirements. The response from individuals, whether for or against this recommendation, fell into a familiar pattern, with most scientists arguing in favor of substantial relaxation, public interest groups and their representatives arguing against.

The atmosphere at the February meeting was very different. Several members made it clear that they had changed their minds since last September in the light of comments they had received; some admitted that they were now seeking ways to rationalize their change of heart, and to justify moving from a position based on scientific belief to one based on political pragmatism.

The dichotomy was revealed in remarks by David Baltimore of the Massachusetts Institute of Technology, one of the original sponsors of the resolution that the guidelines should be made voluntary. Baltimore told the Committee that he still stuck to his original beliefs, even though he was now prepared to reverse his earlier view that Institutional Biosafety Committees should no longer be a legal requirement of research institutions. He then went on to reply to criticism made in several letters that his proposal had been largely an expression of the wishes of the Waltham-based company Collaborative Research, with which he is closely involved as a director and adviser.

"I am proud of my relationship with Collaborative Research," Baltimore said. "But were I acting for Collaborative Research as a member of this Committee, I would not be supporting the RAC proposal. Waltham does not want the RAC proposal. Orrie Friedman [the company's President] says it is not in the interest of any company in the Boston area to see the RAC proposal go through. However, I still believe personally that it is the right thing to do and do not have any ulterior motive."

The members of the Committee subsequently voted, 17 to 3, to reject their earlier suggestion and support the proposals drafted by Gottesman as the basis for introducing new revisions to the guidelines. Even NIH officials were surprised by the size of the turnaround. They pointed out that it was the first time that the Com-

mittee had reversed its position so dramatically in the light of public comment since 1975, when, after recommending the adoption of relatively liberal safety procedures, it had subsequently sanctioned a considerable tightening up under the threat of Congressional legislation if it failed to do so.

The immediate effect of the vote seems to have been to take some of the steam out of the more militant state and local campaigns for new legislation. It also appears, for the time being at least, to set a lower boundary on how far the administrative—rather than the scientific—aspects of the guidelines are likely to be relaxed.

Two issues remain outstanding. The members ducked out from committing themselves to public statements on whether or not they now considered DNA research to be any more dangerous than conventional biological research; and on whether they felt the NIH guidelines precluded the need for additional, local regulations. But both issues will no doubt continue to raise their heads.

Neither issue, however, is likely to generate the same amount of political heat as the proposal that the guidelines should be turned into a voluntary code of conduct. One place where the relief is considerable is in the House of Representatives Science and Technology Committee, which had faced with little enthusiasm the prospect of new demands for federal legislation if local initiatives began to get out of control. "It is our belief that some scientific experiments should require public review," Rep. Don Fuqua (D-Fla.), Chairman of the Committee, wrote to RAC Chairman Ray Thornton, in a letter co-signed with subcommittee chairmen Doug Walgren (D-Pa.) and Albert Gore (D-Tenn.) opposing any radical change in the guidelines. "Scientists must accept (and we believe the majority do) the need to restrict certain hazardous laboratory practices to protect health and safety while realizing that these restrictions do not represent an infringement of their intellectual freedom. It would, we believe, be prudent for scientists to share their insights with an increasing number of people. To do otherwise might invite a public reaction based on fear rather than understanding."-DD

Reports Raps "Voodoo Science"

Voodoo Science, Twisted Consumerism, a report by the Center for Science in the Public Interest, analyzes, and pretty well demolishes, numerous claims of product and substance safety that regularly spout from the industry-supported American Council on Science and Health. (67 pages, \$4 per copy, available from: CSPI, 1755 S St. Nw., Washington, DC 20009.)

Keyworth, Jackson Raise Security Concerns

White House Science Adviser George A. Keyworth and Senator Henry M. Jackson (D-Wash.) have separately given their support in recent weeks to the growing campaign to screen academic research against Soviet prying. Just how they would do this isn't clear, but their thrust is obviously toward controlling access to and publication of campus-based research that Washington's resurgent cold warriors deem sensitive.

In a Q. and A. with the *New York Times*, published February 16, Keyworth responded to a question about technology transfer to the Soviet Union as follows:

"Universities are not used to working with Defense, and Defense is not so used to working with universities. A working relationship that respects each other's requirements and strengths is developing. Technology transfer to the Soviet Union is a clear national security risk. We are not talking about choking off academic freedom in American universities. The implications are grossly overinflated by academics. Nobody is talking about putting a wrench on the nut of academic freedom. But there is a real hemorrhage of technology flowing to the Soviet Union."

Asked by the *Times*, "But that's not from the universities, is it?" Keyworth replied:

"You'd be surprised. The dominant source is not the universities, but the flow from universities is a substantial one, and the more I learn about it, the more amazed I am about how large it is. However, there are only a few sensitive areas, like cryptology."

Jackson, an elder statesman of hardlining, took up the academic theme, among others, in a speech in the Senate on February 11, titled "Technology Transfer Policy—The High Stakes." In it the Senator said that we're being robbed across the board by crafty Russians taking advantage of our innocence. Help is on the way he said, through efforts of the FBI and the Defense Department which, he said, "have begun awareness programs of the hostile intelligence threat for US defense contractors..."

"Much more needs to be done, however," the Senator continued, "particularly to make the academic community aware of the threat from hostile intelligence agencies. Information and awareness are more secure safeguards than censorship," Jackson said, thus taking up the theme of academic self-policing as an antidote to the wiles of Soviet espionage.

The need for vigilence, he explained, is great, because the Soviets exploit "Visits and exchanges, exploratory contract discussions, academic meetings and programs, public information services and applications under the Freedom of Information Act."

Jackson's principal remedy for the alleged hemorrhage would be bigger and better-financed police powers for the Defense Department.

Meanwhile, an organizational step has been taken to illuminate and discuss the academic security issue before it becomes further inflamed. A committee co-chaired by Donald Kennedy, President of Stanford University, and Richard D. DeLauer, Under Secretary of Defense for Research and Engineering, is going to look at the subject, as well as others involving academic-defense relations. Kennedy has been in the forefront of protesting gumshoe intrusions on campus, while DeLauer has quietly been trying to restrain the crackpot elements that might easily sour academic ties that the Defense Department greatly values.

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